

R&S®HE010D ACTIVE HF DIPOLE

100 kHz to 100 MHz

Sensitive monitoring in stationary or mobile installations



The R&S®HE010D active HF dipole is designed as a broadband monitoring antenna for horizontally or vertically polarized waves in the frequency range from 100 kHz to 100 MHz.

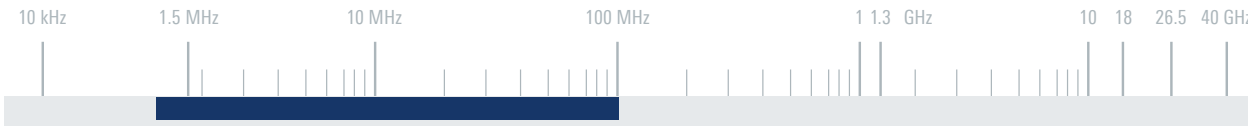
The main application of the antenna is sensitive monitoring in stationary or mobile installations.

The high sensitivity of the R&S®HE010D in combination with high interference immunity to large signal levels allows radiomonitoring and field strength measurements in a wide dynamic range.

Key facts

- ▶ Excellent wideband characteristics
- ▶ Low inherent noise
- ▶ Compact dimensions
- ▶ Easy exchange of antenna rods for service or removal for transportation
- ▶ Protected against overvoltage, which may occur as a result of atmospheric discharges or in the immediate vicinity of strong transmitters



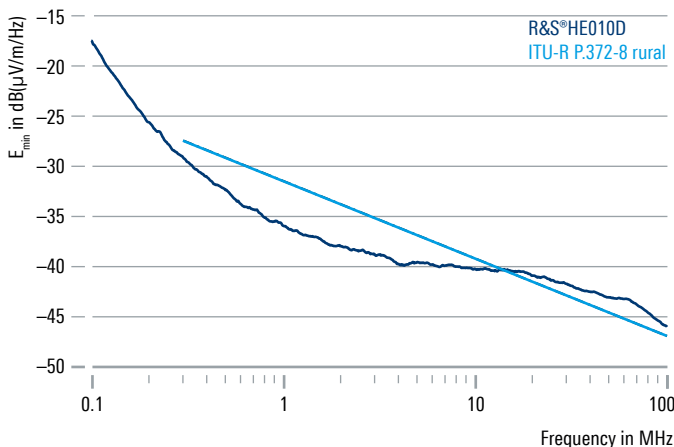


| Specifications | | |
|-----------------------------------|------------------------------|---|
| Frequency range | | 100 kHz to 100 MHz |
| Polarization | | linear horizontal or vertical |
| Nominal impedance | | 50 Ω |
| VSWR | 100 kHz to 200 kHz | < 3.5 |
| | 200 kHz to 100 MHz | < 2.5; 2.0 (typ.) |
| Antenna factor | antenna mounted horizontally | 2.0 dB (1/m) (typ.) |
| Lower limit field strength (1 Hz) | 100 kHz to 1 MHz | frequency dependent, see diagram |
| | > 1 MHz to 100 MHz | < -35 dB(μV/m) (typ.) |
| IP2 | up to 50 MHz | 60 dBm (typ.) |
| | 50 MHz to 100 MHz | 48 dBm (typ.) |
| IP3 | 1 MHz to 100 MHz | 30 dBm (typ.) |
| Power supply | | 24 V DC (-3 V/+1 V) (max. 150 mA) |
| RF connector | | N female |
| MTBF | | > 250 000 h |
| Operating temperature range | | -40°C to +65°C |
| Storage temperature range | | -40°C to +85°C |
| Protection class | | IPx5, in line with EN 60529 |
| Maximum wind speed | without ice deposit | 200 km/h |
| | with 30 mm ice deposit | 180 km/h |
| Dimensions | | approx. 1.75 m × 0.13 m × 0.14 m (69 in × 5 in × 5 in) |
| Weight | | approx. 1.2 kg (3 lb) |

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| Ordering information | Type | Order No. |
|---------------------------------|------------|--------------|
| Active HF dipole | R&S®HE010D | |
| Color: squirrel gray (RAL 7000) | | 4097.8007.02 |
| Color: bronze green (RAL 6031) | | 4097.8007.03 |
| Color: light ivory (RAL 1015) | | 4097.8007.04 |
| Recommended extras | | |
| Bias unit | R&S®IN600 | 4094.3004.xx |
| Mast, length: 6 m, pluggable | R&S®KM011 | 0273.9116.02 |

Typical lower limit field strength level (SNR = 1, directivity = 1.8 dBi) compared to ITU-R P.372-8 rural noise



Typical elevation field pattern for horizontally installed antenna on a 6 m mast above perfectly conducting ground

